

| REPORT DOCUMENTATION PAGE | | | FORM NO. 10 OMB No. 0704-0188 | |
|--|--|---|----------------------------------|--|
| <small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> | | | | |
| 1. AGENCY USE ONLY (Leave blank) | 2. REPORT DATE 9 September 1997 | 3. REPORT TYPE AND DATES COVERED Final 27 March 1996-16 March 1997 | | |
| 4. TITLE AND SUBTITLE "Instrumentation of a New Aircraft for Atmospheric Research by the Cloud and Aerosol Research Group, University of Washington" | | 5. FUNDING NUMBERS C N00014-95-C-0311 PR 43ab005---11/13 Jun 1995/321 | | |
| 6. AUTHOR(S) Peter V. Hobbs | | | | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) University of Washington Grant and Contract Services 3935 University Way N.E. Seattle, WA 98105-6613 | | 8. PERFORMING ORGANIZATION REPORT NUMBER | | |
| 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of Naval Research Ballston Tower One 800 North Quincy Street Arlington, VA 22217-5660 | | 10. SPONSORING / MONITORING AGENCY REPORT NUMBER | | |
| 11. SUPPLEMENTARY NOTES | | | | |
| 12a. DISTRIBUTION AVAILABILITY STATEMENT DISTRIBUTION STATEMENT A Approved for public release Distribution Unlimited | | 12b. DISTRIBUTION CODE | | |
| <p>13 For over 20 years, the UW has operated one of the premier flight facilities in the world for atmospheric research. In 1995, ONR offered to help the UW modernize its facility by obtaining (through the federal excess property system) a CV-580 aircraft for use by UW and providing the UW with financial help to instrument the aircraft for research purposes.</p> <p>In early 1995, the aircraft was excessed by the Federal Aviation Administration and, at the request of the UW, acquired by ONR. Both ONR and the UW expected that the aircraft would be available for UW's use by early 1996. However, ONR did not grant UW permission to either instrument or use the aircraft.</p> <p>ONR later excessed the aircraft; General Services Administration assigned the aircraft to the State of Washington for use by the University. UW took possession of the aircraft on 16 March 1997, thus releasing ONR from responsibility for it.</p> <p>Under the contract, the UW (1) planned for installation and integration of research equipment; (2) kept the CV-580 in nearly ferry-ready condition; (3) arranged for parking, tie-down, and monitoring of it in Oklahoma City; (4) participated in the transfer of the aircraft to the UW. On 25 March 1997 (after the ONR contract expired), the UW flew the aircraft to Seattle.</p> | | | | |
| 14. SUBJECT aircraft, atmospheric research | | 15. NUMBER OF PAGES 4 | | |
| | | 16. PRICE CODE | | |
| 17. SECURITY CLASSIFICATION OF REPORT | 18. SECURITY CLASSIFICATION OF THIS PAGE | 19. SECURITY CLASSIFICATION OF ABSTRACT | 20. LIMITATION OF ABSTRACT | |

**FINAL REPORT FOR "INSTRUMENTATION OF A NEW AIRCRAFT FOR
ATMOSPHERIC RESEARCH BY THE CLOUD AND AEROSOL RESEARCH GROUP,
UNIVERSITY OF WASHINGTON," PROJECT 43AB005---11, ONR CONTRACT
N00014-95-C-0311.**

Period of Performance: 27 March 1996 through 16 March 1997

Peter V. Hobbs
Department of Atmospheric Sciences
University of Washington
Box 351640
Seattle, WA 98195-1640
Tel: (206) 543-6027
Fax: (206) 685-7160
Email: phobbs@atmos.washington.edu

LONG TERM GOALS

To aid the University of Washington (UW) in instrumenting a medium-sized aircraft for use in a wide range of atmospheric and oceanographic research of interest to the ONR and other agencies of the federal government.

OBJECTIVES

For over 20 years the UW has operated one of the premier flight facilities in the world for atmospheric research. However, this facility was in need of modernization. In 1995, ONR offered to help the UW in this task by (1) obtaining (through the government excess property system) a twin turbo-prop CV-580 aircraft for use by the UW, and (2) providing the UW with some financial help to convert and instrument this aircraft for research purposes.

APPROACH

In January 1990 the UW identified a CV-580 aircraft (tail number N90) in Anchorage, Alaska, that was ideally suitable for its research purposes, and which was to be excessed by the Federal Aviation Administration (FAA).

In March 1995, the aircraft was excessed by the FAA. In April 1995, at the request of the UW, it was acquired by ONR. It was expected by both ONR and the UW that the aircraft would be made available for use by the UW by no later than early 1996. Accordingly, the present contract for instrumenting the aircraft was signed in March 1996. However, ONR did not give UW permission to either instrument or use this aircraft during the period of the award.

In December 1996, ONR returned the CV-580 (now with tail number N3UW—formerly N90) to the federal excess property pool. General Services Administration assigned the aircraft to the State of Washington for use by the University of Washington. The UW took possession of the aircraft on March 16, 1997, thus releasing ONR from responsibility for the CV-580.

WORK COMPLETED

When ONR obtained title to the CV-580, it was located in Oklahoma City. In July 1995, the UW received permission to fly the aircraft to Seattle. In November of 1995, and with the concurrence of ONR (but without cost to them), the UW carried out maintenance and repairs on the CV-580 in preparation for flying the aircraft to Seattle. In late November 1995, ONR withdrew permission for the UW to fly the aircraft to Seattle. The CV-580 remained in Oklahoma City until 25 March 1997.

Under the present contract, the UW (1) planned for installation and integration of research equipment on the CV-580; (2) kept the CV-580 in nearly ferry-ready condition; (3) arranged for parking, tie-down, and monitoring of the CV-580 in Oklahoma City; and (4) participated in the transfer of the aircraft to the University of Washington. On 25 March 1997 (after the ONR contract expired), the UW flew the aircraft to the Seattle area.

TECHNICAL RESULTS

(Not applicable)

19971007 205

SYSTEMS APPLICATION

The CV-580, now under the UW's control, is expected to provide an important new research facility for *in situ* and remote sensing measurements of the atmosphere and remote sensing of the oceans to government agencies and the university community.

TRANSITIONS

The more than one-year delay in allowing the UW to start its instrumentation of the CV-580 had a severe impact on the UW's airborne research program. Personnel that were scheduled to work on the present contract (and whose salaries were scheduled to be paid by this contract) were not able to do so.

The UW had expected to start instrumenting the CV-580 in early 1996, in which case it would have had the CV-580 ready for field deployment in 1997.

RELATED PROJECTS

See TRANSITIONS above.

PUBLICATIONS (ON WHICH ONE OR MORE MEMBER OF THE UW/CAR GROUP ARE CO-AUTHORS)

Not applicable

PATENTS

None